

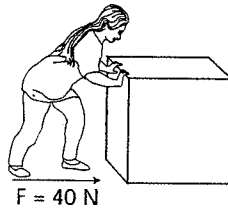
SECTION 4-1

REVIEW AND REINFORCE

What Is Work?

◆ Understanding Main Ideas

Use the following illustration to answer questions 1 through 3.



1. The illustration shows Beatrice pushing on a heavy box. Beatrice pushes with a force of 40 N. How can you determine if Beatrice is doing work on the box?

2. Beatrice pushes the box 2 m to the right. What formula should you use to calculate the amount of work done on the box?

3. How much work does Beatrice do pushing the box?

4

◆ Building Vocabulary

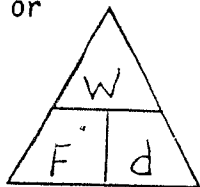
Write a definition for each of the following terms on the lines below.

4. work

5. joule

Section 4.1 - Work

To do work on an object, a force must actually move the object a certain distance.
 A larger force can do more work. Likewise, a larger distance also means more work.
 The equation for work is $W = F \times d$ or



Answer each question by filling in all 3 columns in the chart below.

1. How much work is done when 20N of force are used to hit a softball through a distance of 300m?
2. How much work is done when 50N of force moves a box 5m?
3. What force is needed to move an object 30m with 9000 Joules of work?
4. A force of 10N is applied over a distance of 11m. How much work is done?
5. 135 Joules of work is used over a distance of 5m. How much force is needed?

Equation	Work	Answer / Units